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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,151	06/08/2005	Giovanni Mogna	HOFF-38315	3249
86378	7590	10/02/2009		
Pearne & Gordon LLP 1801 East 9th Street Suite 1200 Cleveland, OH 44114-3108			EXAMINER BADR, HAMID R	
			ART UNIT 1794	PAPER NUMBER
			NOTIFICATION DATE 10/02/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/538,151	<b>Applicant(s)</b> MOGNA, GIOVANNI	
	<b>Examiner</b> HAMID R. BADR	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE 8/14/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/14/2009 has been entered.

### ***Claim Objection***

Claims 17-22 are objected to for "characterized in that". This phrase is not commonly used in U.S. patent practice. It is suggested to use [wherein] instead of the said phrase.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 16-24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While including in milk a greater aptitude to coagulation resulting in promoting subsequent transformations into dairy products is

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supported by the instant specification, there is no support for promoting coagulation of the milk by adding a *Lactobacillus plantarum*.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16-24, 27-31 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 is indefinite for "to promote coagulation of the milk". The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear over what standard this is to be "promoted", and also what properties are "promoted" (i.e. faster time, increased yield, etc.).

6. Claim 16 is indefinite for "a *Lactobacillus plantarum* strain of lactic bacteria". A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the

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remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation lactic bacteria, and the claim also recites *Lactobacillus plantarum* which is the narrower statement of the range/limitation.

7. Claim 27 is indefinite for “effective to treat milk”. It is unclear what is meant by effective. Since the coagulation of milk is effectuated through other means, e. g. addition of rennin, it is not clear what is meant by “effective to treat milk for milk coagulation”.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 16 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Khalid et al. (1990, Proteolytic activity by strains of *Lactobacillus plantarum* and *Lactobacillus casei*; hereinafter R1)

10. R1 investigates the proteolytic activity of the nonstarter lactic acid bacteria and its role in the maturation of the cheese. (page 3068, introduction, paragraph 2).

11. R1 discloses that *Lactobacillus plantarum* occur in most hard and semi-hard cheeses as adventitious bacteria and they may contribute to flavor development during

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ripening process. Evaluating strains of lactobacilli by monitoring electrophoresis may be of practical value in selection of strains for potential use in cheese making. (page 3068, introduction, paragraph 3).

12. Given that *Lactobacillus plantarum* occur in milk naturally, milk inherently will contain a *Lactobacillus plantarum* strain of lactic acid bacteria as presently claimed.

13. R1 concludes that the results from their study suggest that addition to cheese milk of strains of *Lactobacillus plantarum*, might be of practical importance in accelerating the cheese ripening process. (page 3075, Col. 1, paragraph 2)

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 16-21, 23-25, 27-31, rejected under 35 U.S.C. 103(a) as being unpatentable over Reinbold et al. (US 4,085,228; hereinafter R2) in view of Khalid et al. (1990, Proteolytic activity by strains of *Lactobacillus plantarum* and *Lactobacillus casei*; hereinafter R1)

16. R2 discloses the addition of *Lactobacillus plantarum* to the cheese milk before making the cheese curd. The milk is inoculated with 0.5-3% (w/w) of *Lactobacillus plantarum*.

17. Addition of a lyophilized form of the culture, as presently claimed, would be obvious to an artisan.

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18. R2 discloses the number of bacteria per gram of product (col. 7, Table B). The number of bacteria as disclosed by R2 would be in the range as presently claimed.

19. While R2 discloses the incorporation of *Lactobacillus plantarum* to the cheese milk before making cheese, R2 is silent regarding the specific strains as presently claimed.

20. R1 discloses the screening method for proteolytic strains of *Lactobacillus plantarum* and the incorporation of such strains in cheese milk.

21. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to screen out the proteolytic strains of *Lactobacillus plantarum* (from cheese sources), as taught by R2, and incorporate them into cheese as taught by R1. One would do so to accelerated the ripening process of cheese. Absent any evidence to contrary and based on the teachings of the cited references, there would be a reasonable expectation of success in screening out strains like the presently claimed strains and add them to the cheese milk for the beneficial effects of such strains.

22. Claims 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over R2 and R1, further in view of Yamauchi et al. (US 5,527,505; hereinafter R3).

23. R2 and R1 are silent regarding the inoculation of raw milk with lactic acid bacteria.

24. R3 discloses the inoculation of raw milk with lactic acid bacteria such as *Lactococcus lactis ssp. lactis* together with other lactic acid bacteria. (Abstract).

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25. R3 discloses the addition of such species to the raw milk for their preservative properties during the storage of milk.

26. Therefore, it would have been obvious to one ordinary skill in the art, at the time the invention was made, to inoculate the raw milk with lactic acid bacteria including *Lactobacillus plantarum* and *Lactococcus lactis*. One would do that to cause proteolysis of milk as well as preservation of milk. Absent any evidence to contrary and based on the combined teachings of the cited references, there would be a reasonable expectation of success in treating cheese milk before making the cheese curd.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr  
Examiner  
Art Unit 1794

/KEITH D. HENDRICKS/

Supervisory Patent Examiner, Art Unit 1794